

## REMARKS

Favorable reconsideration is respectfully requested.

The claims are 1 to 14 and 17 to 21.

The above amendment is responsive to points set forth in the Official Action.

Firstly, undersigned acknowledges with appreciation the helpful interview with Examiner Toscano on March 18, 2008.

A summary of the representations made at this interview will be included in the remarks below.

Firstly, new claims 18 to 21 are presented and support is evident from the present specification, particularly at page 4, lines 8 to 10 with respect to recitation of low gloss achieved by the present composition and process.

Claims 1, 2, 4 to 14 and 17 have been rejected under 35 U.S.C. 103(a) as obvious over Shoji et al. (JP 57-205458) in view of Daly et al. (U.S. 6,294,610).

This rejection is respectfully traversed.

Firstly, at the interview, the Examiner maintained that Shoji et al. (JP 57-205458) essentially teaches the presently claimed composition but for Tg and that this deficiency is made up by Daly et al.

This rejection is respectfully traversed.

The essential object of the present invention is to provide low or medium gloss compositions suitable for application to heat sensitive substrates.

As explained in the present specification, for example, at pages 1 to 3, it has been difficult to produce low to medium gloss compositions suitable for application to heat sensitive substrates such as wood, fiber board and other materials which cannot withstand the excessive heat-time conditions necessary to cure traditional coatings. For example, see page 1, first full paragraph in this regard.

Such low or reduced gloss is defined at page 4, lines 8 and 9 of the present specification and is specifically recited in new claims 18 to 21.

Turning to Shoji et al. (JP 57-205458), the deficiencies of its powder coating composition include the fact that it is intended to produce smooth, high gloss finishes at high curing temperatures, as pointed out at page 3, lines 6 and 7 of the present specification.

On the other hand, Daly et al. (U.S. 6,294,610), as explained at page 2, lines 12 to 23 of the present specification, relates to the production of smooth, low gloss finishes which is at odds with the objective of Shoji et al. which, as stated above, is to produce high gloss finishes.

This will be discussed in further detail below.

The rejection attempts to show obviousness by asserting that compositions of the references are similar merely because they are both in the same general field of powder coatings. Applicants have already rebutted such *prima facie* arguments of obviousness with a detailed analysis of the specific teaching of each cited document in their last response. Applicants have already provided many reasons why a skilled person would not be motivated to combine the cited references and why to do so contradicts the direct teachings therein.

Considering the issue of obviousness – not novelty – it is not determinative whether or not there is a slight overlap between elements in the prior art (such as Tg) and elements of the present invention. This is not a case of accidental anticipation, rather the whole document must be considered in context when deciding what elements (if any) a skilled reader, without any knowledge of the present invention, would combine with information in another document. Each document must be read as a whole to appreciate what it teaches a skilled reader and to decide objectively which combinations of documents and elements would have been reasonable for a skilled person to have made at the priority date of the present invention.

Even where it is decided that it is reasonable to read two documents in combination, this is not enough. As there are many elements disclosed in each document, there must be a credible motive for a skilled reader to select any particular element over any other, especially if the element to be selected is not exemplified, is only described generically or falls only within the extremes of the ranges disclosed.

Vague assertions about a generic suitability for intended use are insufficient to rebut the presumption of non-obviousness given Applicants' arguments of record. Indeed this suggests that the rejection is a hindsight reconstruction of the present invention based on Applicants' own disclosure, which is of course impermissible.

It is noted that the rejection has made some incorrect or questionable technical assertions which contradict the clear teachings of the art.

For example, amorphous and semi-crystalline polyesters are not "recognized in the art" as functional equivalents, contrary to the statement on page 5, first full paragraph of the Official Action. Moreover, many patent applications such as WO 91/014745 (Courtaulds) and WO 04-083325 (UCB) are concerned with inventions that exploit the difference in properties between powder coatings made from polyesters with these different morphologies. A skilled person would not assume that they can simply replace one another in a formulation, as the rejection seems to imply.

Even if all the compositional requirements are met, it is incorrect to assume that without evidence, other physio-chemical properties (such as viscosity, fusion zone or degree of crystallinity), required for a suitable powder coating composition, would also be met.

One cannot assume that it would be obvious or self-evident to simply exchange catalysts between all powder compositions and methods of preparing them.

Clear and pigmented coatings are not necessarily functional equivalents, as incorporating a pigment can require extensive reformulation to obtain a stable coating.

Similarly cure times and methods of application may need to be adapted to the specific powder coatings of interest and so cannot be assumed to be the same for compositions described in different documents merely by asserting a generic suitability for an intended use.

## I. Non-obviousness over Shoji et al. and Daly et al.

### A. Starting with Shoji et al.

#### i) Skilled reader addressing same problem.

The rejection still fails to provide any reason why a skilled person wishing to prepare powder coatings suitable for heat sensitive substrates would refer to Shoji et al. (rather than the many other documents which describe powder compositions). A person who was interested in and aware of the same problem addressed by the present invention would simply have no reason to select Shoji et al. from the forest of documents in this field. In fact, for the reasons already submitted, an art-skilled person interested in this problem would have every reason not to refer to Shoji et al. (e.g. high cure temperature).

#### ii) Skilled reader unaware of same problem.

For the above reasons, the art-skilled reader of Shoji et al. is therefore more likely to be oblivious to the problem addressed by the present invention. In the absence of any teaching

within Shoji et al. to do so, he would have absolutely no reason to modify the compositions of Shoji et al. to arrive at the present invention. The rejection is working backward from the invention and not forward from a neutral reading of Shoji et al.

Applicants have already provided ample reasons to support why a reader of Shoji et al. would be deterred for adding low Tg components given the higher softening points disclosed in Shoji et al. The rejection may have simply ignored earlier arguments and has not properly rebutted them.

**iii) Why combine Shoji et al. with Daly et al.?**

The powder compositions of Shoji et al. and Daly et al. are no more than superficially similar (and no more so than the many hundreds of other powder compositions also known in the art). What is the motivation in Shoji et al. to specifically refer to Daly et al. rather than any other reference in the field? Why would a reader of Shoji et al. import an arbitrary feature (Tg) disclosed in an arbitrarily selected reference (Daly et al.) to modify the powders of Shoji et al.? As already discussed, Shoji et al. teaches a reader not to use lower Tg.

The rejection argues that the Tg of Daly et al.'s polymer components may inherently be either of a high or a low Tg. But this is irrelevant. For the sake of argument, assume that a reader of Shoji et al. would be less deterred from modifying compositions described in Shoji et al. with a class of polymers described in Daly et al., if some of this class of polymers could have a high Tg (and therefore be consistent with the teaching of Shoji et al.). However, this cannot credibly be used to argue that a reader of Shoji et al. would also be motivated to use the same class of Daly et al. polymers when of low Tg (see Official Action at page 8, paragraph 3).

Where Daly et al. teaches use of polymers of low Tg (slightly lower than 40°C) such teaching is incompatible with Shoji et al. and would be discounted by a reader of Shoji et al.

Insofar as Daly et al. teaches use of polymers of high Tg, the combination with Shoji et al. is irrelevant as it does not lead to the present invention.

**B. Starting with Daly et al.**

**i) Skilled reader addressing same problem.**

If a person interested in addressing the problem sought to be solved by the present invention started from Daly et al. (as it also addresses the same problem), the rejection has acknowledged this would not arrive at the present invention. Yet Daly et al. teaches that this

problem is solved by using polymers with an average  $M_n$  much lower than those of the present invention. What reason would a reader of Daly et al. give for ignoring the teaching therein and instead increasing the  $M_n$  of the polymers?

ii) **Why combine with Shoji et al.?**

As Daly et al. teaches that the powders disclosed therein are suitable for coating heat sensitive substrates, why would a reader be motivated to cross-reference any other document for a problem it teaches is already solved?

Even if an art-skilled person did decide to refer to other documents, why would they select Shoji et al. from the many others possible? Shoji et al. describes powder paints that are applied at 180°C (= 356°F) (see Embodiment 1, page 10 of USPTO translation). Daly et al. teaches that powders must be cured at  $\leq 300^{\circ}\text{F}$  (= 149°C), preferably  $\leq 250^{\circ}\text{F}$  (= 121°C) (see col. 6, lines 46 to 64). So a reader of Daly et al. would be actively deterred from reading Shoji et al. or importing any of the features described therein into the powders of Daly et al.

Accordingly, the rejection on Shoji et al. in view of Daly et al. is untenable for all of the claims in this application, including newly added claims 18 to 21.

Claims 1 to 14 and 17 have been rejected under 35 U.S.C. 103(a) as obvious over Shoji et al. (JP 57-205458) and Daly et al. (U.S. 6,294,610) in view of Pettit (U.S. 5,202,382).

This rejection is also respectfully traversed.

Pettit relates to a thermosetting powder coating composition containing a mixture of low Tg and high Tg polymers which have good processability and other properties, including higher gloss. See column 2, line 4.

Thus, an art-skilled worker seeking to produce a low gloss composition would have little reason to look to Pettit whose compositions have improved gloss.

At the interview, the Examiner maintained that Pettit's compositions have other desirable characteristics such as improved processability, however, this would appear to be irrelevant or trivial as a motivation for combining it with the other references, where the objective is to produce a composition of low gloss. If such is not produced from the combined reference teachings, it is not possible to lead the art-skilled to the present invention.

Additional points are as follows:

**II. Non-obviousness over Shoji et al., Daly et al. and Pettit**

It is unlikely that an art-skilled person would combine elements from three documents and this strongly suggests the rejection has used hindsight to arrive at this combination. These documents might be combined in three main ways.

**A. Starting with Shoji et al.**

For the reasons already given above, Applicants have shown that the present claims are non-obvious over the combination Shoji et al. with Daly et al. The addition of Pettit to this combination does not render the invention additionally obvious.

Shoji et al. is concerned with powder paints having superior compatibility, coatability and durability (see page 3, line 15 of USPTO translation). Pettit is concerned with providing hard, chemically resistant, exteriorly durable films (col. 1, lines 31 to 32). However, as discussed above, Daly et al. relates to a different problem and so while (arguendo) it is possible that a reader of Shoji et al. might refer to Pettit, it is very unlikely that they would do so in combination with Daly et al. as well. Indeed, as the disclosures of Pettit and Daly et al. are incompatible (see below), a reader of Shoji et al. would be actively deterred from considering all three documents together.

**B. Starting with Daly et al.**

For the reasons already given, the present claims are non-obvious over the combination Daly et al. with Shoji et al. The addition of Pettit to this combination does not render the invention additionally obvious.

The powders of Pettit are cured at 177°C (= 350°F) (see Examples 1 to 6, and col. 11, line 67 and col. 12, line 52). Thus, a reader of Daly et al. would be actively deterred from reading Pettit or importing any of the features described therein into the powders of Daly et al.

**C. Starting with Pettit.**

Why would an art-skilled person interested in coating heat sensitive substrates start with Pettit which, as has already been submitted, relates to a different problem?

Even if one did start from Pettit as it relates to a different problem, an art-skilled reader would be unmotivated to modify the compositions to provide low temperature curing but would instead try to improve the solution to the problem addressed in Pettit.

In the Official Action on page 8, paragraph 4, the rejection begs the question as a reader of Pettit may (arguendo) be taught to use low Tg but then has no reason to refer to either Shoji et

al. or Daly et al. Alternatively, as already discussed, a reader starting with either Shoji et al. or Daly et al. would not refer to Pettit, so any teaching therein about the merits of using low Tg polymers (for any reason) is simply irrelevant.

So in any combination and in any order, the present invention is non-obvious over these three documents.

For the foregoing reasons, it is apparent that the rejections on prior art are untenable with respect to the claims previously of record and especially with respect to the newly presented claims.

No further issues remaining, allowance of this application is respectfully requested.

If the Examiner has any comments or proposals for expediting prosecution, please contact undersigned at the telephone number below.

Respectfully submitted,

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March 19, 2008